Dementia: Multidisciplinary Approach to Treatment
Dr. David Hutchings
Chief Executive Officer
Stonerise Therapy
Overview

• Dementia Staging
  – Mini Mental? Then What?

• Multidisciplinary
  • Falls
  • Functional Activities
  • Swallowing
  • Nutritional Deficits
Overview

• 300% Increase
• 7,918 individuals turn 65 daily
• 330 individuals turn 65 per hour
• 10 million baby boomers will develop dementia
• Every 71 seconds someone is dx with AD
• Midcentury every 33 seconds someone will be dx with AD
• 67.8% have dementia in ALF
• 34% of the 67.8% have significant behavioral symptoms associated with the dementia
• 27% moderate to severe dementia
Grace Kirkland

Grace was a caring wife and mother, an accomplished seamstress, and an excellent cook. She generously gave of herself to church activities and to welcoming new members to the congregation.

When Grace was 66 years old her family noted memory problems. In church, the choir director noticed a deterioration in her highly regarded music ability.

Cared for by her Husband Dr. Kirkland.

She was tracked from the onset of the diagnosis to death.

At age 72, Grace was having difficulty preparing meals. A year later, she was no longer independently participating in family life. She lost the ability to walk, bath, toilet, communicate and eat.

On May 22\textsuperscript{nd}, 1990 Grace passed away at the age of 79.

\textit{(University of Maryland Medical School)}
Dementia

Not a specific disease

Collection of symptoms characterized by:

- Impaired intellectual functioning
- Loss of problem solving ability
- Emotional ability
- Personality changes
- Behavioral
- Memory loss

Not a normal part of aging
Dementia

- Cortical Atrophy
- Mild Cognitive Impairment
  - Amnesic-Most Common
  - Multiple Domain- Language Deficits, Judgement impairments and/or accompany declines in memory
- MCI and AD
- AD 71% of all Dementias
Cognitive and Memory not associated with Normal Aging

- Frequent Memory Lapses
- Forgetting how to do things
- Difficulty learning new materials
- Repeating questions or conversations
- Indecisiveness
- Difficulty handling money
- Losing track of daily events
Defining Cognition and Types of Dementia

• 5 As
  – Amnesia: Recognition/Retrieval of New Information
  – Aphasia: Language
  – Apraxia: Carrying out Motor Movements
• Association
  – Agnosia: Recognition of People, Places, Environment
  – Attention/Concentration: Gait and Weight Loss
Most common types of Dementia are:

- Alzheimer's Dementia (AD) - most common
- Vascular Dementia (VaD)/Multi-Infarct Dementia
- Lewy Body Dementia (LBD)
- Parkinson's Dementia
- Frontotemporal Lobar Dementia (FTD)
  - Behavior Variant (BvFTLD)
  - Semantic Dementia/Temporal Varient (Tv-FTLD)
  - Primary Progressive Aphasia (PPS-FTLD)
Neuropathology of Alzheimer’s
<table>
<thead>
<tr>
<th>FAST STAGE</th>
<th>CHARACTERISTICS</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>No difficulty either subjectively or objectively.</td>
</tr>
<tr>
<td>2</td>
<td>Complain of forgetting location of objects. Subjective work difficulties.</td>
</tr>
<tr>
<td>3</td>
<td>Decreased job functioning evident to co-workers. Difficulty in traveling to new locations. Decreased organizational capacity.</td>
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<tr>
<td>4</td>
<td>Decreased ability to perform complex tasks, (e.g., planning dinner for guests handling personal finances, forgetting to pay bills, etc.)</td>
</tr>
<tr>
<td>5</td>
<td>Requires assistance in choosing proper clothing to wear for the day, season or occasion</td>
</tr>
<tr>
<td>6A</td>
<td>Improperly putting on clothes without assistance or cueing</td>
</tr>
<tr>
<td>6B</td>
<td>Unable to bathe properly (not able to choose proper water temp)</td>
</tr>
<tr>
<td>6C</td>
<td>Inability to handle mechanics of toileting (e.g., forget to flush the toilet, does not wipe properly or properly dispose of toilet tissue)</td>
</tr>
<tr>
<td>6D</td>
<td>Urinary incontinence</td>
</tr>
<tr>
<td>6E</td>
<td>Fecal incontinence</td>
</tr>
<tr>
<td>7A</td>
<td>Vocabulary limited to 6 or less intelligible words</td>
</tr>
<tr>
<td>7B</td>
<td>Speech limited to a single, intelligible word</td>
</tr>
<tr>
<td>7C</td>
<td>Ambulatory ability lost</td>
</tr>
<tr>
<td>7D</td>
<td>Needs support to sit</td>
</tr>
<tr>
<td>7E</td>
<td>Unable to smile</td>
</tr>
<tr>
<td>7F</td>
<td>Unable to hold head upright</td>
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</tbody>
</table>
Vascular Dementia

- Second most common form of dementia
- Approximately 20% of all dementias
- Associated with cardiovascular problems that cause reduced blood flow to the brain

<table>
<thead>
<tr>
<th>Multi-infarct</th>
<th>Single-infarct</th>
</tr>
</thead>
<tbody>
<tr>
<td>Small, repeated reduction in blood flow that results in tissue damage</td>
<td>Single, often larger reduction in blood flow that results in tissue damage (stroke)</td>
</tr>
<tr>
<td>Often throughout the brain</td>
<td>Symptoms depend on area that is damaged</td>
</tr>
<tr>
<td>Step-wise pattern to clinical decline</td>
<td></td>
</tr>
</tbody>
</table>
Vascular Dementia

Alzheimer's Disease Education and Referral Center, National Institute on Aging
Vascular Dementia: Clinical Characteristics

- Slowed thinking
- Mood instability
- Laughing or crying inappropriately (Pseudobulbar Affect)
- Confusion, which may get worse at night
- Personality changes and loss of social skills
- Memory problems

- Hallucinations and delusions
- Dizziness /leg or arm weakness /tremors
- Coordination/balance issues
- Incontinence
- Slurred speech; word search
# PDD and Lewy Body Dementia

## Two Related Clinical Diagnoses

Dopamine regulates: movement, mood, sleep, reward, motivation, addiction

<table>
<thead>
<tr>
<th>Dementia with Lewy Bodies (DLB)</th>
<th>Parkinson’s Disease Dementia (PDD)</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Dementia comes first, then onset of Parkinson’s like symptoms</td>
<td>• Parkinson’s Disease is established first, then symptoms of dementia</td>
</tr>
<tr>
<td>• Minimum of one year between these components</td>
<td>• Minimum of one year between these components; often 10-15 years</td>
</tr>
<tr>
<td>• Abnormal protein structures called Lewy Bodies within the substantia nigra</td>
<td>• Approximately 20-40% of patients with Parkinson’s disease develop PDD</td>
</tr>
<tr>
<td>• Average life expectancy is 7 years</td>
<td>• PDD less common with early-onset PD (&lt;age 50)</td>
</tr>
</tbody>
</table>
Frontotemporal Dementia (FTD)

• Group of progressive degenerative diseases characterized by shrinking of the frontal and temporal lobes of the brain
• Estimated 10-15% of all dementias
• Symptoms usually emerge between age 40-65
• On average, 6-8 year life expectancy
• 3 Main Types
  – Behavioral Variant FTD (bvFTD): Changed behavior; judgment
  – Semantic Dementia/Temporal Varient (Tv-FTLD)
  – Primary Progressive Aphasia (PPS-FTLD)
Frontotemporal Dementia

Defining Cognition and Types of Dementia

- **Cognition**: Is a large group of functions of knowing. Including;
  - **Memory**
    - Immediate Memory
    - Short Term Memory
    - Long Term Memory
    - Remote Memory
    - Semantic Memory
    - Episodic Memory
  - **Executive Functions**
    - Common Sense/Problem Solving
    - Cause and Effect
    - Divergent Thinking
    - Sequencing
  - **Language**
    - Receptive (Understanding)
    - Expressive (Speaking)
Defining Cognition and Types of Dementia

- **Immediate**: Reproduction, recognition or recall of a limited amount of material acquired within the previous 10 seconds
- **Short-Term**: Reproduction, recognition or recall of a limited amount of material acquired between 10 seconds and 20 minutes
- **Long-Term**: Reproduction, recognition, or recall of information acquired more than 20 minutes ago
- **Remote**: Recall or recognition of experiences or information acquired in past years
- **Semantic Memory**: Memory from a fact
- **Episodic Memory**: Memory of an autobiographical event (Family vacation).
Defining Cognition and Types of Dementia

• **Common Sense/Problem Solving**: Good judgment or intelligence and the ability to apply commonly held knowledge of behaviour in social situations.

• **Cause and Effect**: The ability to understand the results of a variety of happenings and how certain events influence other events.

• **Divergent Thinking**: An aspect of creative thinking characterized by formulation of alternative solutions to a problem.

• **Sequencing**: The ability to put a series of events in the correct order.
Language: Defined

• **Expressive Language:** The ability to express wants and needs through verbal language
  – *Expressive Aphasia:* Language impairment characterized by the patient’s inability to express language.

• **Receptive Language:** The ability to understand verbal language
  – *Receptive Aphasia:* Language impairment characterized by the patient’s inability to understand language.
Symptom Management

• Nutritional Concern impact all dementia and all patients
• Pneumonia then Antibiotics
• Falls-Hip Fx-PT
• Falls or decline in ADLs then OT.
Dysphagia is an impairment in the swallowing function that may occur anywhere from the mouth to the stomach (Perlaman, 1997).

Dysphagia Causes Pneumonia
Dysphagia Prevalence

• Baby Boomers: 330 per hour and 7,918 per day turn 65 y/o
• Mainly associated with advanced aging
• The incidence is approximately 44% in the geriatric population and is associated with significant morbidity and mortality
• Noted to result in weight loss, poor nutrition, dehydration, decubitus, social isolation, aspiration pneumonia and even death
• Approximately 58% of the SLPs caseload in home health are dysphagia patients
• Over the past decade, the number of hospitalized elderly Medicare beneficiaries admitted to the hospital with a dx of aspiration pneumonia has increased 93.8%.
Aspiration in Dementia

• *** Aspiration is only one symptom of dysphagia
• 60% of aspiration is silent aspiration
• 68% of CVA pts have silent aspiration
• Common Signs and Symptoms of Aspiration:
  – Coughing during or after eating
  – Feeling of food “sticking in throat”
  – Runny Nose
  – Watery Eyes
  – Gurgled Vocal Quality
  – Loss of Weight
  – Dehydration
  – Temperature increases associated with meals and intake
Dysphagia and Dementia

- **Sensory damage** can disrupt the process of bolus organization, mastication and Oral Transit.
- **Motor damage** caused by dementia can disrupt airway closure and pharyngeal movement.
- Due to Sensory and Motor Damage dementia patients demonstrate aspiration, silent aspiration, bronchiectasis, dehydration, weight loss, and starvation.
Dementia and Dysphagia

• Cognitive impaired develop Dysphagia

• Dementia patients:
  – Changes in behavior during meals
  – Sensory loss affecting ability to eat, swallow, follow treatment strategies
  – Motor loss affecting ability to initiate swallow

• Primary cause of dysphagia in dementia = intellectual impairment
Dysphagia and Dementia

• Dysphagia in Dementia affects oral and pharyngeal stages of swallowing and is due to age-related changes in sensory and motor function as well as effects of dementia on the neural networks involved in swallowing

• Dysphagia in Dementia
  – Physiological
  – Environmental Distractions
Cognition and Dysphagia
Think Beyond Aspiration

• Aspiration
• Choking
• Tracheostomy
• Malnutrition
• Dehydration
• Weight loss

• Wound
• Pressure Ulcer
• Chronic Respiratory Illness
• PEG or J-Tube
• Confusion
• Death
Common Difficulties with Eating and Drinking

• Reduced
  – Interest in food and drink
  – Appetite
• Forget to eat and drink
• Increase in meal time requirement
• Cough and choke with intake

• Refuse food
• Weight loss
• Dysphagia
• Impaired sense of smell
Current Treatment for Dysphagia

Compensation interventions

– Feeding Tubes
– Diet modifications
– Feeding Techniques
Feeding Tube Myths

- **Prevent Malnutrition**: No improvement of nutritional markers
- **Maintain Skin Integrity**: ↑ risk for pressure ulcer formation
- **Prevent Aspiration Pneumonia**: Never shown to ↓ aspiration pneumonia incidence
- **Improve Quality of Life**: May ↑ suffering and discomfort
- **↑ Functional Status and Survival**: Never shown to ↑ life span
Feeding Tubes

• Do not increase survival
  • Advanced Dementia
    • Most patient will die within 30 days of Tube Placement
• Do not prevent or decrease risk of aspiration pneumonia
  • Aspiration occurs in about 50% of patients with Feeding Tubes
• Decreased number of swallows per day
• Feeding Tubes can increase risk for developing wounds
• Feeding Tubes and Increase in Weight and Nutritional Status
PEG Tubes - 78% SLPs Believe

• Outcomes data does not support this belief that PEG tube feeding reduces the risk of aspiration pneumonia.
## Diet Modifications:

<table>
<thead>
<tr>
<th>Diet Level</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>NDD Level 1: Dysphagia Pureed</td>
<td>All foods must be pureed and thickened (if necessary) to a pudding-like consistency. It must be lump free or no chewing is required</td>
</tr>
<tr>
<td>NDD Level 2: Dysphagia Mechanically Altered</td>
<td>All foods are moist, soft-textured and easily chewed. Meats are ground and served with gravy or sauce. Cooked breakfast cereals and soft pancakes moistened with syrup are included. Tuna Salad and egg are allowed. Some chewing is required.</td>
</tr>
<tr>
<td>NDD Level 3: Dysphagia Advanced</td>
<td>Includes most regular consistency foods but excludes hard, dry, sticky, or crunch foods. Food should be moist and in bite-size pieces. Dry breakfast cereals must be well moistened and meats must be tender. Lettuce can be served if shredded.</td>
</tr>
<tr>
<td>NDD Level 4: Regular</td>
<td>No restrictions</td>
</tr>
</tbody>
</table>
National Dysphagia Diet (NDD) - Textures

**Thin:**
- Nectar-like
  - Honey-like:
    - Spoon/Pudding-like
Oral Care

- Conduct after each meal
- Make it a focus of your treatment
- Make it a goal
- Quality of Life
- Diet compliance from patient
Dementia Staging

- Mini Mental Status Exam (MMSE)
- Global Deterioration Scale
- Brief Cognitive Rating Scale
MMSE and Function in the Home

- **25-20**
  - Keeping appointments (i.e., doctor etc.)
  - Meal Preparation
  - Walking/Ambulation
  - Transfers
  - Medication management
  - Other High Level ADLs

- **20-15**
  - Safety in the home
  - Use of appliances in the home
  - Dressing, grooming, selecting cloths to wear
  - Toileting
  - Communication
  - Finding objects in the home

- **Below 15**
  - Eating
  - Swallowing
  - Inappropriate behaviors
  - Appetite
  - Sensation
  - Communicating Wants and Needs
Global Deterioration Scale

Rating scale

1: No cognitive impairment
2: Very mild cognitive decline
3: Mild cognitive decline
4: Moderate cognitive decline
5: Moderately severe cognitive decline
6: Severe cognitive decline
7: Very severe cognitive decline

Used with Brief Cognitive Rating Scale
The Global Deterioration Scale for Assessment of Primary Degenerative Dementia

The Global Deterioration Scale (GDS), developed by Dr. Barry Reisberg, provides caregivers an overview of the stages of cognitive function for those suffering from a primary degenerative dementia such as Alzheimer’s disease. It is broken down into 7 different stages. Stages 1-3 are the pre-dementia stages. Stages 4-7 are the dementia stages. Beginning in stage 5, an individual can no longer survive without assistance. Within the GDS, each stage is numbered (1-7), given a short title (i.e., Forgetfulness, Early Confusional, etc.) followed by a brief listing of the characteristics for that stage. Caregivers can get a rough idea of where an individual is at in the disease process by observing that individual’s behavioral characteristics and comparing them to the GDS. For more specific assessments, use the accompanying Brief Cognitive Rating Scale (BCRS) and the Functional Assessment Staging (FAST) measures.

<table>
<thead>
<tr>
<th>Level</th>
<th>Clinical Characteristics</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>No cognitive decline</td>
</tr>
<tr>
<td>2</td>
<td>Subjective complaints of memory deficit, most frequently in following areas: (a) forgetting where one has placed familiar objects; (b) forgetting names one formerly knew well. No objective evidence of memory deficit on clinical interview. No objective deficits in employment or social situations. Appropriate concern with respect to symptomatology.</td>
</tr>
<tr>
<td>3</td>
<td>Earliest clear-cut deficits. Manifestations in more than one of the following areas: (a) patient may have gotten lost when traveling to an unfamiliar location; (b) co-workers become aware of patient’s relatively poor performance; (c) word and name finding deficit becomes evident to intimates; (d) patient may read a passage or a book and retain relatively little material; (e) patient may demonstrate decreased facility in remembering names upon introduction to new people; (f) patient may have lost or misplaced an object of value; (g) concentration deficit may be evident on clinical testing. Objective evidence of memory deficit obtained only with an intensive interview. Decreased performance in demanding employment and social settings. Denial begins to become manifest in patient. Mild to moderate anxiety accompanies symptoms.</td>
</tr>
<tr>
<td>4</td>
<td>Clear-cut deficit on careful clinical interview. Deficit manifest in following areas: (a) decreased knowledge of current and recent events; (b) may exhibit some deficit in memory of one's personal history; (c) concentration deficit elicited on serial subtractions; (d) decreased ability to travel, handle finances, etc. Freqently no deficit in following areas: (a) orientation to time and place; (b) recognition of familiar persons and faces; (c) ability to travel to familiar locations. Inability to perform complex tasks. Denial is dominant defense mechanism. Flattening of affect and withdrawal from challenging situations frequently occur.</td>
</tr>
<tr>
<td>Stage</td>
<td>Description</td>
</tr>
<tr>
<td>-------</td>
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</tr>
<tr>
<td>5</td>
<td>Moderately severe cognitive decline (Moderate Dementia)</td>
</tr>
<tr>
<td>6</td>
<td>Severe cognitive decline (Moderately Severe Dementia)</td>
</tr>
<tr>
<td>7</td>
<td>Very severe cognitive decline (Severe Dementia)</td>
</tr>
</tbody>
</table>

Patient can no longer survive without some assistance. Patient is unable during interview to recall a major relevant aspect of their current lives, e.g., an address or telephone number of many years, the names of close family members (such as grandchildren), the name of the high school or college from which they graduated. Frequently some disorientation to time (date, day of week, season, etc.) or to place. An educated person may have difficulty counting back from 40 by 4s or from 20 by 2s. Persons at this stage retain knowledge of many major facts regarding themselves and others. They invariably know their own names and generally know their spouses’ and children’s names. They require no assistance with toileting and eating, but may have some difficulty choosing the proper clothing to wear.

May occasionally forget the name of the spouse upon whom they are entirely dependent for survival. Will be largely unaware of all recent events and experiences in their lives. Retain some knowledge of their past lives but this is very sketchy. Generally unaware of their surroundings, the year, the season, etc. May have difficulty counting from 10, both backward and, sometimes, forward. Will require some assistance with activities of daily living, e.g., may become incontinent, will require travel assistance but occasionally will be able to travel to familiar locations. Diurnal rhythm frequently disturbed. Almost always recall their own name. Frequently continue to be able to distinguish familiar from unfamiliar persons in their environment. Personality and emotional changes occur. These are quite variable and include: (a) delusional behavior, e.g., patient may accuse their spouse of being an impostor, may talk to imaginary figures in the environment, or to their own reflection in the mirror; (b) obsessive symptoms, e.g., person may continually repeat simple cleaning activities; (c) anxiety symptoms, agitation, and even previously nonexistent violent behavior may occur; (d) cognitive abulia, i.e., loss of willpower because an individual cannot carry a thought long enough to determine a purposeful course of action.

All verbal abilities are lost over the course of this stage. Frequently there is no speech at all - only unintelligible utterances and rare emergence of seemingly forgotten words and phrases. Incontinence of urine, requires assistance toileting and feeding. Basic psychomotor skills, e.g., ability to walk, are lost with the progression of this stage. The brain appears to no longer be able to tell the body what to do. Generalized rigidity and developmental neurologic reflexes are frequently present.


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Brief Cognitive Rating Scale

• 5 Axes
  – Concentration
  – Recent Memory
  – Past Memory
  – Orientation
  – ADL & Functional Abilities

• Each axis is measured on a scale of 1-7
  – Scores from each axis added then divided by 5

• Higher scores indicate higher level of impairment
<table>
<thead>
<tr>
<th>Date</th>
<th>Date</th>
<th>Date</th>
<th>Date</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rating</td>
<td>Rating</td>
<td>Rating</td>
<td>Rating</td>
<td>Rating</td>
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</tbody>
</table>
| **Assessment** | **Brief Cognitive Rating Scale (BCRS)***  
**Barry Reisberg, M.D.** |
<p>| <strong>Axis I: Concentration</strong> |
| 1 | 1 | 1 | 1 | 1 | 1= No objective or subjective evidence of deficit in concentration. |
| 2 | 2 | 2 | 2 | 2 | 2= Subjective decrement in concentration ability. |
| 3 | 3 | 3 | 3 | 3 | 3= Minor objective signs of poor concentration (e.g., subtraction of serial 7's from 100). |
| 4 | 4 | 4 | 4 | 4 | 4= Definite concentration deficit for persons of their backgrounds (e.g. marked deficit on serial 7's; frequent deficit in subtraction of serials 4's from 40). |
| 5 | 5 | 5 | 5 | 5 | 5= Marked concentration deficit (e.g., giving months backwards or serials 2's from 20). |
| 6 | 6 | 6 | 6 | 6 | 6= Forgets the concentration task. Frequently begins to count forward when asked to count backwards from 10 by 1's. |
| 7 | 7 | 7 | 7 | 7 | 7= Marked difficulty counting forward to 10 by 1's. |</p>
<table>
<thead>
<tr>
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<th>Axis II: Recent Memory</th>
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</thead>
<tbody>
<tr>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td></td>
<td>1= No objective or subjective evidence of deficit in recent memory.</td>
</tr>
<tr>
<td>2</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td></td>
<td>2= Subjective impairment only (e.g., forgetting names more than formerly).</td>
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<tr>
<td>3</td>
<td>3</td>
<td>3</td>
<td>3</td>
<td></td>
<td>3= Deficit in recall of specific events evident upon detailed questioning. No deficit in recall of major recent events.</td>
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<tr>
<td>4</td>
<td>4</td>
<td>4</td>
<td>4</td>
<td></td>
<td>4= Cannot recall major events of previous weekend or week. Scanty knowledge (not detailed) of current events, favorite TV shows, etc.</td>
</tr>
<tr>
<td>5</td>
<td>5</td>
<td>5</td>
<td>5</td>
<td></td>
<td>5= Unsure of weather; may not know current President or current address.</td>
</tr>
<tr>
<td>6</td>
<td>6</td>
<td>6</td>
<td>6</td>
<td></td>
<td>6= Occasional knowledge of some events. Little or no idea of current address, weather, etc.</td>
</tr>
<tr>
<td>7</td>
<td>7</td>
<td>7</td>
<td>7</td>
<td></td>
<td>7= No knowledge of any recent events.</td>
</tr>
</tbody>
</table>
### Axis III: Past Memory

<p>| 1 | 1 | 1 | 1 | 1= | No subjective or objective impairment in past memory. |
| 2 | 2 | 2 | 2 | 2= | Subjective impairment only. Can recall two or more primary school teachers. |
| 3 | 3 | 3 | 3 | 3= | Some gaps in past memory upon detailed questioning. Able to recall at least one childhood teacher and/or one childhood friend. |
| 4 | 4 | 4 | 4 | 4= | Clear-cut deficit. The spouse recalls more of the patient's past than the patient. Cannot recall childhood friends and/or teachers but knows the names of most schools attended. Confuses chronology in reciting personal history. |
| 5 | 5 | 5 | 5 | 5= | Major past events sometimes not recalled (e.g., names of schools attended). |
| 6 | 6 | 6 | 6 | 6= | Some residual memory of past (e.g., may recall country of birth or former occupation). |
| 7 | 7 | 7 | 7 | 7= | No memory of past. |</p>
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<tr>
<th></th>
<th>1</th>
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<th>1</th>
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<th><strong>Axis IV: Orientation</strong></th>
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<tbody>
<tr>
<td>1</td>
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<td>1</td>
<td>1</td>
<td>1</td>
<td></td>
<td>1= No deficit in memory for time, place, identify of self or others.</td>
</tr>
<tr>
<td>2</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td></td>
<td>2= Subjective impairment only. Knows time to nearest hour, location.</td>
</tr>
<tr>
<td>3</td>
<td>3</td>
<td>3</td>
<td>3</td>
<td>3</td>
<td></td>
<td>3= Any mistakes in time &gt;2 hours: day of week &gt; 1 day; date &gt; 3 days.</td>
</tr>
<tr>
<td>4</td>
<td>4</td>
<td>4</td>
<td>4</td>
<td>4</td>
<td></td>
<td>4= Mistakes in month &gt; 10 days or year &gt; 1 month.</td>
</tr>
<tr>
<td>5</td>
<td>5</td>
<td>5</td>
<td>5</td>
<td>5</td>
<td></td>
<td>5= Unsure of month and/or year and/or season; unsure of locale.</td>
</tr>
<tr>
<td>6</td>
<td>6</td>
<td>6</td>
<td>6</td>
<td>6</td>
<td></td>
<td>6= No idea of date. Identifies spouse but may not recall name. Knows own name.</td>
</tr>
<tr>
<td>7</td>
<td>7</td>
<td>7</td>
<td>7</td>
<td>7</td>
<td></td>
<td>7= Cannot identify spouse. May be unsure of personal identity.</td>
</tr>
<tr>
<td>Axis V: Functioning and Self-Care</td>
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<tr>
<td>Score</td>
<td>Explanation</td>
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<tr>
<td>1</td>
<td>No difficulty, either subjectively or objectively.</td>
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<td>2</td>
<td>Complains of forgetting location of objects. Subjective work difficulties.</td>
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<td>3</td>
<td>Decreased job functioning evident to coworkers. Difficulty traveling to new locations.</td>
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<td>4</td>
<td>Decreased ability to perform complex tasks (e.g., planning dinner for guests, handling finances, marketing, etc.)</td>
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<td>5</td>
<td>Requires assistance in choosing proper clothing.</td>
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<td>6</td>
<td>Requires assistance in feeding, and/or toileting, and/or bathing, and/or ambulating.</td>
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<td>7</td>
<td>Requires constant assistance in all activities of daily life.</td>
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Total Score = Stage on Global Deterioration Scale (GDS)
Occupational Therapy and Dementia

• Improve social and occupational functioning
• Increase independence with ADLs and/or IADLs
• Improve quality of life (for both patient and caregiver)
• Increase safety/reduce injuries and complications
Occupational Therapy Effectiveness

• Study determined that community-based occupational therapy for patients with dementia and their caregivers was also cost-effective as a result of fewer hospital visits and less money spent with respect to informal caregiving

Occupational Therapy and ADL’s

• Developing routines to successfully complete ADLs/IADLs is important for patients with dementia.

• Focus on ADLs/IADLs that the patient enjoys and finds meaningful; training those ADLs/IADLs that stimulate the patient’s memory and involve rote tasks (e.g., cooking his or her favorite recipe, listening to or playing a favorite song) can be particularly helpful for a patient with dementia.
Falls and Dementia

- Most common reason for hospital admissions at 40%

- 60% of patients with Dementia will fall

- Most will die with in one year of the fall (Shaw, 1998).

- For every 100 patients with Dementia - 400 falls will occur (Edwards & Lee, 1998).

- A year after a diagnosis of dementia hip fracture rates were 2.7 times those in the same age range without the diagnosis (Tinetti 1988)
Falls and Dementia

• Etiology of Falls in Dementia
  – Physical Weakness
    • Some patients have balance issues before memory deficits begin
    • Some Research indicates poor balance can be an early indicator
    • Later stages of dementia impacts muscle strength, gait and balance
  – Lack of Physical Exercise
  – Memory Impairments and Poor Judgment
  – Visual Misperception
    • Dementia can impact visual-spatial abilities
    • Steps, uneven services, carpet, Busy Carpet, shinny surfaces, color
Falls and Dementia

- Clutter
- Fatigue
- Medication sides effects
  - For Example, Antipsychotic medications can sometimes cause orthostatic hypotension
  - CNS Depressants (Neurontin)
- Restlessness
- Discomfort, Pain, Hunger or Thrust
- Need to use the Restroom
- Boredom
- Loneliness
Falls and Dementia

- For every point decreased from 24 and below in the Mini Mental places a patient at a 9% increase of fall risk
- Decreased Step Length
- Decreased Gait Speed
- Decreased Obstacle Avoidance
- Increased Gait Arrhythmias
- Increased Postural Sway
Physical Therapy Approaches

• Decrease fall risk by decreasing cognitive demands while ambulating
  – Remove environmental hazards
  – Use the same path to get from Point A to Point B
  – Minimize or eliminate dual task situations
    • Do not give instructions while walking
    – Do use simple, 1-step, consistent phrases
    – Do NOT use negative commands
      • Negative commands are actually 2 step commands
Three years later
Care Delivery Model for Dementia: Multidisciplinary

- Physician
- Physical Therapy
- Occupational Therapy
- Speech-Language Pathology
- Skilled Nursing
- Medical Social Worker